

**NOTICE OF 30-DAY PERIOD
FOR PUBLIC COMMENT**

Preliminary Findings Regarding a Federal Enforceable State Operating Permit
Significant Permit Revision

for **Product Specialties**
in **Floyd County**

FESOP No.: F043-6294-00039
Significant Permit Revision No.: 043-13627-00039

Notice is hereby given that the above-mentioned company, located at 2073 McDonald Avenue, New Albany, Indiana, 47150, has made application to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Significant Permit Revision to its Federally Enforceable State Operating Permit (FESOP) issued on August 12, 1997, for a new four color rotogravure coater and laminator. The potential to emit of VOC will increase by twenty (20) tons per year. These VOC emissions are limited to less than 100 tons per year.

Notice is hereby given that there will be a period of thirty (30) days from the date of publication of this notice during which any interested person may comment on why this proposed permit revision should or should not be issued. Appropriate comments should be related to any air quality issues, interpretation of the state and federal rules, calculations made, technical issues, or the effect that the operation of this source would have on any aggrieved individuals. IDEM, OAQ does not have jurisdiction in specifying and implementing requirements for zoning, odor or noise. For such issues, please contact your local officials.

A copy of the application and draft permit revision is available for examination at the New Albany - Floyd County Public Library, 108 W. Spring Street, New Albany, Indiana, 47150. A copy of the draft permit revision is also available for examination at www.state.in.us/idem/oam/index.html. All statements, along with supporting documentation, should be submitted in writing to the IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015. If adverse comments concerning the **air pollution impact** of this draft permit revision are received, together with a request for a public hearing, such a hearing may be held to give further consideration to this application.

Persons not wishing to comment at this time, but wishing to receive notice of future proceedings conducted related to this action, must submit a written request to the OAQ, at the above address. All interested parties of record will receive a notice of the decision on this matter and will then have fifteen (15) days after receipt of the Notice of Decision to file a petition for administrative review. Procedures for filing such a petition will be enclosed with the Notice.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mike Pring, ERG, P.O. Box 2010, Morrisville, North Carolina 27560, or call (919) 468-7840 to speak directly to Mr. Pring. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR QUALITY**

**Product Specialties, Inc.
2073 McDonald Avenue
New Albany, Indiana 47150**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: 043-6294-00039	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: August 12, 1997

First Significant FESOP Modification: 043-10076 issued on November 16, 1998

First Significant Permit Revision: 043-10564 issued on May 30, 2000

Second Significant Permit Revision: 043-13627	Pages Affected: 4, 4a, 5, 19, 20, 21, 22, 23, 24, 24a, 25, 25a, 26c, 26d
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 22, 2001

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information

The Permittee owns and operates a plastic film manufacturing plant.

Responsible Official: Edward M. Ernst
Source Address: 2073 McDonald Avenue, New Albany, Indiana 47150
Mailing Address: 2073 McDonald Avenue, New Albany, Indiana 47150
SIC Code: 3081
County Location: Floyd County
County Status: Nonattainment for VOCs and NOx
Source Status: Synthetic Minor Source, FESOP Program

A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

- (a) One (1) PVC resin powder storage silo, EU-01, with a maximum storage capacity of 78.8 tons. This silo is equipped with a baghouse for particulate matter control and exhausts to stack vent V1. The material is conveyed via one (1) PVC resin powder transfer system, EU-03, at a maximum throughput capacity of 3,883 tons per year. This system exhausts to stack vent V3;
- (b) One (1) calcium carbonate (CaCO₃) storage silo, EU-02, with a maximum storage capacity of 61 tons. This silo is equipped with a baghouse for particulate matter control and exhausts to stack vent V2. The material is conveyed via one (1) CaCO₃ transfer system, EU-04, with a maximum throughput capacity of 2,590 tons per year. This system exhausts to stack vent V3;
- (c) Two (2) plastic film mixing lines, identified as EU-05, and EU-10. Each line consists of a dry scale, scale transfer, mixer transfer, mixer, cool blend transfer, tote transfer, ribbon blender, and ribbon blend transfer. The dry scales shall be equipped with dedicated filter socks that exhaust to the interior of the plant. The mixer and mixer transfer operations shall be equipped with a baghouse which exhausts to the interior of the plant. These lines also consists of a liquid scale with a maximum throughput of 4,800 pounds per hour and a liquid mixer with a maximum throughput of 720 pounds per hour;
- (d) Two (2) extrusion units, identified as EU-06 and EU-07 that exhaust to stacks S4 and S5, respectively. Each extrusion unit is limited to 521 pounds of compound per hour;
- (e) One (1) rotogravure press, identified as EU-09, with a maximum coverage of 15 pounds of ink per million square inches (lb/MM in²) of PVC sheet;
- (f) One (1) rotogravure press with four (4) color printing heads, identified as EU-11, with a maximum coverage of 14.4 lb/MM in² of PVC sheet;

- (g) One (1) four color rotogravure press, identified as EU-13, with a maximum coverage of 1.622 gal/MM in² of sheet vinyl;
- (h) One (1) Wash Coater #2, with a line speed of 150 feet per minute (ft/min), and a coating width of 57 inches;
- (i) Two (2) laminators, identified as EU-08, and EU-12. Each laminator has a limited production rate of 4,670,000 yds laminated film/year; and
- (j) One (1) laminator, identified as EU-14, with a production rate of 4,670,000 yards laminated film/year.

A.3 Insignificant Activities [326 IAC 2-7-1(20)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- (a) one (1) natural gas-fired boiler rated at 2.7 MMBTU per hour;
- (b) one (1) natural gas-fired boiler rated at 2.0 MMBtu/hr,
- (c) two (2) natural gas-fired indirect heaters rated at 0.75 MMBtu/hr each,
- (d) one (1) cold cleaner degreasing operation with a capacity of 20 gallons to clean small parts;
- (e) three (3) granulators that chop waste film and recirculate to the mixing line;

- (f) one (1) plastisol mixing line with emissions exhausting to the interior of the plant;
- (g) VOC/HAP storage containers for lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (h) equipment relating to manufacturing activities that does not result in HAP emissions including brazing equipment, cutting torches, soldering equipment, and welding equipment;
- (i) closed loop heating and cooling systems;
- (j) natural draft cooling towers not regulated under a NESHAP;
- (k) replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment;
- (l) paved and unpaved roads and parking lots with public access;
- (m) blowdown for sight glass, boiler, compressors, pumps, and cooling towers.
- (n) two natural gas fired dryers rated at 304,000 BTU/hr each,
- (o) one natural gas fired space heater rated at 580,000 BTU/hr; and
- (p) one (1) natural gas-fired indirect heater for EU-13 rated at 2.0 MMBtu/hr.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description:

- (a) One (1) PVC resin powder storage silo, EU-01, with a maximum storage capacity of 78.8 tons. This silo is equipped with a baghouse for particulate matter control and exhausts to stack vent V1. The material is conveyed via one (1) PVC resin powder transfer system, EU-03, at a maximum throughput capacity of 3,883 tons per year. This system exhausts to stack vent V3;
- (b) One (1) calcium carbonate (CaCO₃) storage silo, EU-02, with a maximum storage capacity of 61 tons. This silo is equipped with a baghouse for particulate matter control and exhausts to stack vent V2. The material is conveyed via one (1) CaCO₃ transfer system, EU-04, with a maximum throughput capacity of 2,590 tons per year. This system exhausts to stack vent V3;
- (c) Two (2) plastic film mixing lines, identified as EU-05, and EU-10. Each line consists of a dry scale, scale transfer, mixer transfer, mixer, cool blend transfer, tote transfer, ribbon blender, and ribbon blend transfer. The dry scales shall be equipped with dedicated filter socks that exhaust to the interior of the plant. The mixer and mixer transfer operations shall be equipped with a baghouse which exhausts to the interior of the plant. These lines also consists of a liquid scale with a maximum throughput of 4,800 pounds per hour and a liquid mixer with a maximum throughput of 720 pounds per hour;
- (d) Two (2) extrusion units, identified as EU-06 and EU-07 that exhaust to stacks S4 and S5, respectively. Each extrusion unit is limited to 521 pounds of compound per hour;
- (e) One (1) rotogravure press, identified as EU-09, with a maximum coverage of 15 pounds of ink per million square inches (lb/MM in²) of PVC sheet;
- (f) One (1) rotogravure press with four (4) color printing heads, identified as EU-11, with a maximum coverage of 14.4 lb/MM in² of PVC sheet;
- (g) One (1) four color rotogravure press, identified as EU-13, with a maximum coverage of 1.622 gal/MM in² of sheet vinyl;
- (h) One (1) Wash Coater #2, with a line speed of 150 feet per minute (ft/min), and a coating width of 57 inches;
- (i) Two (2) laminators, identified as EU-08, and EU-12. Each laminator has a limited production rate of 4,670,000 yds laminated film/year; and
- (j) One (1) laminator, identified as EU-14, with a production rate of 4,670,000 yards laminated film/year.

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter

Pursuant to 326 IAC 6-3 (Process Operations), the following facilities of the plastic film manufacturing plant shall not exceed the following associated particulate matter emissions:

Process Facility	Stack ID	Allowable PM Emissions (lbs/hr)
Resin Powder Storage Silo/Transfer System	V1	2.37
CaCO ₃ Storage Silo/Transfer System	V2	1.79
Plastic Film Mixing Line/Granulators, EU-05	V3	3.52
Extrusion Unit, EU-06	S4	1.66
Extrusion Unit, EU-07	S5	1.66
Laminator, EU-08	S6	0.27
Plastic Film Mixing Line, EU-10	V3	3.52
Laminator, EU-12	S8	0.27
Laminator, EU-13	S14	0.27
Total		15.37

D.1.2 Particulate Matter < 10 microns (PM-10)

Pursuant to 326 IAC 2-8 (FESOP Program), the following facilities of the plastic film manufacturing plant shall not exceed the following associated material throughput rates and PM-10 emissions:

Process Facility	Stack ID	Throughput Limits (tons/hr)	Emissions Factors	PM-10 Emission Limits (lbs/hr)
Resin Powder Storage Silo/Transfer System	V1	0.44	13 lb/ton	2.37
CaCO ₃ Storage Silo/Transfer System	V2	0.29	13 lb/ton	1.79
Plastic Film Mixing Line/Granulators, EU-05	V3	0.794	0.6 lb/ton	3.52
Extrusion Unit, EU-06	S4	0.51	0.00232 lb/lb	1.66
Extrusion Unit, EU-07	S5	0.51	0.00232 lb/lb	1.66
Laminator, EU-08	S6	1800*	0.0005 lb/yd	0.27
Plastic Film Mixing Line, EU-10	V3	0.794	0.6 lb/ton	3.52
Laminator, EU-12	S8	1800*	0.0005 lb/yd	0.27
Laminator, EU-13	S14	1200	0.0005 lb/yd	0.27

* this throughput limit is measured as yards of PVC sheet/hr
1 yard of PVC sheet = 15 ounces
1 ounce = 16 lb

The above PM emission limits shall be demonstrated using each corresponding Emission Factor to calculate the emissions. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.1.3 Visible Emissions

Pursuant to 326 IAC 5-1 (Visible Emissions Limitations), the visible emissions from the plastic film manufacturing plant shall not exceed an average of 40 percent opacity in 24 consecutive readings or 60 percent opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-2-11]

Pursuant to 326 IAC 8-2-11 (Fabric and Vinyl Coating VOC Limitations), the VOC content of the coatings used from the rotogravure presses EU-09, EU-11, EU-13 and the wash coater #2 shall be limited to 4.8 pounds of VOC per gallon of coating less water delivered to the applicator.

D.1.5 Hazardous Air Pollutants

The hazardous air pollutant emissions shall be limited as follows:

- (a) A single hazardous air pollutant (HAP) emissions shall not exceed 9 tons/12-month period rolled on a monthly basis.
- (b) Any combination of HAPs emissions shall not exceed 24 tons/12-month period rolled on a monthly basis.

Therefore, the requirements of 326 IAC 2-7 do not apply.

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the three (3) Laminators shall be limited as follows:

- (a) Laminator EU-08 shall be limited to a production rate of 4,670,000 yards of film per 12-month period rolled on a monthly basis. The limit on this laminator will restrict the VOC emissions to 15.17 tons per 12-month period rolled on a monthly basis. Compliance with this limit will make 326 IAC 8-1-6 (General Reduction) requirements not applicable in this case.
- (b) The new Laminator, EU-12 shall be limited to a production rate of 4,670,000 yards of film per 12-month period rolled on a monthly basis. The limit on this laminator will restrict the VOC emissions to 15.17 tons per 12-month period rolled on a monthly basis. During its first twelve (12) months of operation, its production rate shall be limited such that the total production rate divided by the accumulated months of operation shall not exceed 613,200 yards per month.

Compliance with this limit will make 326 IAC 8-1-6 (General Reduction) requirements not applicable in this case.

- (c) Laminator EU-14 shall be limited to a production rate of 4,670,000 yards of film per 12-month period, rolled on a monthly basis. The limit on this laminator will restrict the VOC emissions to 15.17 tons per 12-month period rolled on a monthly basis.

Compliance with this limit will make 326 IAC 8-1-6 (General Reduction) requirements not applicable in this case.

D.1.7 Volatile Organic Compounds [326 IAC 2-8]

Pursuant to 326 IAC 2-8, the following facilities shall be limited as follows:

- (a) The material compounded from Extruder Line 1 EU-06 and Extruder Line 2 EU-07 shall be limited to 9,127,920 pounds per 12 month period, rolled on a monthly basis.
- (b) The VOC input usage from the new Rotogravure Press EU-11, shall be limited to 6.21 tons per 12-month period rolled on a monthly basis. During the first twelve (12) months of operation of this press, its input VOC usage shall be limited such that the total usage divided by the accumulated months of operation shall not exceed 1.9 tons per month.

- (c) The VOC input usage from the new Wash Coater #2, shall be limited to 3.11 tons per 12-month period rolled on a monthly basis. During the first twelve (12) months of operation of this coater, its input VOC usage shall be limited such that the total usage divided by the accumulated months of operation shall not exceed 0.675 tons per month.
- (d) The VOC input usage from the existing Rotogravure Press, EU-09 shall be limited to 1.55 tons per 12-month period rolled on a monthly basis.
- (e) The VOC input usage from the four color rotogravure press EU-13 shall be limited to 4.66 tons per 12-month period rolled on a monthly basis.

Compliance with conditions D1.7(a) through (e) and D1.6 (a) through (c) shall make 326 IAC 2-7, Part 70 Permit Requirements not applicable.

D.1.8 Volatile Organic Compounds (VOC) [326 IAC 12] [40 CFR 60, Subpart FFF]

Pursuant to 40 CFR 60.582(a)(1), the permittee shall use inks with a weighted average VOC content less than 1.0 kilogram VOC per kilogram ink solids in EU-09, EU-11, and EU-13.

D.1.9 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to EU-09, EU-11, and EU-13 except when otherwise specified in 40 CFR Part 60, Subpart FFF.

Compliance Determination Requirements

D.1.10 Testing Requirements [40 CFR 60, Subpart FFF] [326 IAC 12]

Pursuant to 40 CFR 60.8(a), within 60 days after achieving maximum production rate, but no later than 180 days after initial startup of EU-13, the Permittee shall perform a compliance test for ink VOC content utilizing 40 CFR Part 60, Appendix A, Method 24, or other methods approved by the Commissioner. This test shall be performed to determine compliance with Condition D.1.8.

D.1.11 Volatile Organic Compounds (VOC) [326 IAC 12] [40 CFR 60, Subpart FFF]

Compliance with the VOC content contained in Condition D.1.8 shall be determined pursuant to 40 CFR 60.583(c) using plant blending and inventory records for each affected facility in conjunction with ink manufacturers' formulation data. IDEM, OAQ, reserves the authority to determine compliance using EPA Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.1.12 Visible Emissions Notations

- (a) Visible emission notations of the plastic film mixing line stack exhaust shall be performed once per working shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations from each storage silo baghouse stack exhaust shall be performed during loading operations. A trained employee shall record whether emissions are normal or abnormal.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.1.13 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with condition B.13 of this permit is required for this facility.

D.1.14 Preventive Inspections

The following inspections shall be performed when the plastic film manufacturing line baghouse is operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

- Weekly:
- (a) Bag cleaning mechanisms;
 - (b) Condition of the ductwork; and
 - (c) Bag tension (shake or reverse-air units only).

- Monthly:
- (a) Internal inspection for air leaks;
 - (b) Bag condition; and
 - (c) Fan condition and operation.

Appropriate corrective actions shall be taken in accordance with Condition C.9.

D.1.15 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse associated with the plastic film mixing line, at least once per working shift when its associated facility is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across each baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.16 Broken Bag or Failure Detection

That in the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the units have been replaced.
- (b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

D.1.17 Particulate Matter

The particulate matter (PM) emissions shall be considered in compliance with 326 IAC 6-3 provided that:

- (a) Good housekeeping and equipment maintenance procedures are implemented;
- (b) Emissions are minimized in receiving, handling, and shipping operations by appropriate methods. These may include but need not be limited to, dust collection systems, windscreens, baffles, restricted hopper openings, enclosed transfer points, flexible drop spouts and/or sleeves;
- (c) No visible accumulation of particulate matter beyond the plant property line;
- (d) Emissions do not violate 326 IAC 6-4 (Fugitive Dust Emissions); and
- (e) Visible emissions from the processes are operated under "normal" conditions in accordance with operation condition D.1.8.

D.1.18 Volatile Organic Compounds

The raw material limit in Condition D.1.6 and D.1.7 will result in an equivalent VOC emissions of 99 tons per 12 month. The emissions shall be calculated using the emission factor of 0.0043 lb of VOC/ lb compounded from the two extruders, EU-06 and EU-07, and emission factor 0.0065 lb VOC/yd of film from the three lamination lines, EU-8, EU-14, and EU-12.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.19 Record Keeping Requirements

- (a) To document compliance with Condition D.1.12, the Permittee shall maintain records of daily visible emission notations of each stack exhaust.
- (b) To document compliance with Condition D.1.15, the Permittee shall maintain the following:
 - (1) Daily records of the following operational parameters during normal operation:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency and differential pressure.
 - (2) Documentation of all corrective actions implemented, per event.
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.

- (c) To document compliance with Condition D.1.6, and D.1.7 the Permittee shall maintain the daily film usages from Laminators EU-08, EU-12, and EU-14; ink and solvent usages from Rotogravure Presses EU-09, EU-13 and EU-11; material compounded from Extruders EU-06 and EU-07; solvent usages from Degreasing operations and other volatile organic material usages from the insignificant activities.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.20 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.6, and D.1.7 shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

D.1.21 Reporting Requirements [40 CFR 60.580, Subpart FFF]

- (a) The performance test data and results from the initial performance test shall be submitted to the Commissioner specified in Section 60.8(a) of the General Provisions (40 CFR Part 60, Subpart A).
- (b) Following the initial performance test, the Permittee shall submit semi-annual reports to the Commissioner of exceedances of the weighted average Volatile Organic Compound (VOC) content, specified in § 60.582(a)(1). These reports shall be postmarked within 30 days following the end of the second and fourth calendar quarters
- (c) The requirements of 40 CFR 60.585 remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternate means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with this subsection, provided that they comply with the requirements established by the State.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description:

- (a) one (1) natural gas-fired boiler rated at 2.7 MMBtu per hour;
- (b) one (1) natural gas-fired boiler rated at 2.0 MMBtu/hr,
- (c) two (2) natural gas-fired indirect heaters rated at 0.75 MMBtu/hr each,
- (d) one (1) cold cleaner degreasing operation with a capacity of 20 gallons to clean small parts;
- (e) three (3) granulators that chop waste film and recirculate to the mixing line;
- (f) one (1) plastisol mixing line with emissions exhausting to the interior of the plant;
- (g) VOC/HAP storage containers for lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (h) equipment relating to manufacturing activities that does not result in HAP emissions including brazing equipment, cutting torches, soldering equipment, and welding equipment;
- (i) closed loop heating and cooling systems;
- (j) natural draft cooling towers not regulated under a NESHAP;
- (k) replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment;
- (l) paved and unpaved roads and parking lots with public access;
- (m) blowdown for sight glass, boiler, compressors, pumps, and cooling towers.
- (n) two natural gas fired dryers rated at 304,000 BTU/hr each,
- (o) one natural gas fired space heater rated at 580,000 BTU/hr; and
- (p) one (1) natural gas-fired indirect heater for EU-13 rated at 2.0 MMBtu/hr.

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate Matter

That pursuant to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), particulate matter (PM) emissions from the 2.7 million BTU/hour boiler, the new 2.0 MMBtu/hr boiler, the 2.0 million Btu/hour indirect-fired heater for EU-13 and the new two (2) indirect-fired heaters shall be limited to 0.6 pound per million BTU heat input.

D.2.2 Volatile Organic Compounds

That pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) and 326 IAC 8-3-5 (Cold Cleaner

Degreaser Operation and Control), the degreasing operation shall comply with the requirements of this rule.

- (a) According to 326 IAC 8-3-2, the owner or operator shall:
 - (1) equip the cleaner with a cover;
 - (2) equip the cleaner with a facility for draining cleaned parts;
 - (3) close the degreaser cover whenever parts are not being handled in the cleaner;
 - (4) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
 - (5) provide a permanent, conspicuous label summarizing the operation requirements; and
 - (6) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.
- (b) According to 326 IAC 8-3-5(a), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Products Specialties, Inc.
Source Address: 2073 McDonald Avenue, New Albany, Indiana 47150
Mailing Address: 2073 McDonald Avenue, New Albany, Indiana 47150
FESOP No.: F043-6294-00039, Issued August 12, 1997
Amendment: SMF/ENSR-043-10076-00039
Facility: Laminators, EU-08 EU-12, and EU-14
Pollutant: VOC
Production Limit: Laminator EU-08, - 4,670,000 yards per 12-month period rolled on a monthly basis
Laminator EU-12, - 4,670,000 yards per 12-month period rolled on a monthly basis
Laminator EU-14, - 4,670,000 yards per 12-month period rolled on a monthly basis

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Products Specialties, Inc.
Source Address: 2073 McDonald Avenue, New Albany, Indiana 47150
Mailing Address: 2073 McDonald Avenue, New Albany, Indiana 47150
FESOP No.: F043-6294-00039, Issued August 12, 1997
Amendment: SMF/ENSR-043-10076-00039
Facility: Sourcewide Facilities (Laminators EU-08 & EU-12 & EU-14; Rotogravure Presses EU-09 & EU-13 & EU-11; Wash Coater #2; Extruders EU-06 & EU-07; & insignificant activities)
Limit: Rotogravure Press EU-09 - 1.55 tons of VOC input usage per 12-month period.
Rotogravure Press EU-11 - 1.55 tons of VOC input usage per 12-month period.
Rotogravure Press EU-13 - 4.66 tons of VOC input usage per 12-month period.
Wash Coater #2 - 3.11 tons of VOC input usage per 12-month period.
Extruder EU-06 and EU-07 - 9,127,920 lb of material compound per 12-month period.
These limits together with the laminators and insignificant activities will result to a VOC emissions of 99 ton 12/month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Mr. Marty Ernst
Product Specialties, Inc.
2073 McDonald Avenue
New Albany, Indiana 47150

Re: 043-13627
Second Significant Revision to
FESOP 043-6294-00039

Dear Mr. Ernst:

Product Specialties was issued a permit on August 12, 1997, for a plastic film manufacturing plant. A letter requesting changes to this permit was received on December 22, 2000. Pursuant to the provisions of 326 IAC 2-8-11.1 a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of a four color Rotogravure (EU-13), Laminator (EU-14), and a printer dryer heater (EU-15).

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

Pursuant to Contract No. A305-0-00-36, IDEM, Office of Air Quality has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mike Pring, ERG, P.O. Box 2010, Morrisville, North Carolina 27560, or call (919) 468-7840 to speak directly to Mr. Pring. Questions may also be directed to Duane Van Laningham at IDEM, Office of Air Quality, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch

Attachments

ERG/MP

cc: File -Floyd County
U.S. EPA, Region V
Floyd County Health Department
Air Compliance Section Inspector - Joe Foyst
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR QUALITY**

**Product Specialties, Inc.
2073 McDonald Avenue
New Albany, Indiana 47150**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: 043-6294-00039	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: August 12, 1997

First Significant FESOP Modification: 043-10076 issued on November 16, 1998

First Significant Permit Revision: 043-10564 issued on May 30, 2000

Second Significant Permit Revision: 043-13627	Pages Affected: 4, 4a, 5, 19, 20, 21, 22, 23, 24, 24a, 25, 25a, 26c, 26d
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 22, 2001

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information

The Permittee owns and operates a plastic film manufacturing plant.

Responsible Official: Edward M. Ernst
Source Address: 2073 McDonald Avenue, New Albany, Indiana 47150
Mailing Address: 2073 McDonald Avenue, New Albany, Indiana 47150
SIC Code: 3081
County Location: Floyd County
County Status: Nonattainment for VOCs and NOx
Source Status: Synthetic Minor Source, FESOP Program

A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

- (a) One (1) PVC resin powder storage silo, EU-01, with a maximum storage capacity of 78.8 tons. This silo is equipped with a baghouse for particulate matter control and exhausts to stack vent V1. The material is conveyed via one (1) PVC resin powder transfer system, EU-03, at a maximum throughput capacity of 3,883 tons per year. This system exhausts to stack vent V3;
- (b) One (1) calcium carbonate (CaCO₃) storage silo, EU-02, with a maximum storage capacity of 61 tons. This silo is equipped with a baghouse for particulate matter control and exhausts to stack vent V2. The material is conveyed via one (1) CaCO₃ transfer system, EU-04, with a maximum throughput capacity of 2,590 tons per year. This system exhausts to stack vent V3;
- (c) Two (2) plastic film mixing lines, identified as EU-05, and EU-10. Each line consists of a dry scale, scale transfer, mixer transfer, mixer, cool blend transfer, tote transfer, ribbon blender, and ribbon blend transfer. The dry scales shall be equipped with dedicated filter socks that exhaust to the interior of the plant. The mixer and mixer transfer operations shall be equipped with a baghouse which exhausts to the interior of the plant. These lines also consists of a liquid scale with a maximum throughput of 4,800 pounds per hour and a liquid mixer with a maximum throughput of 720 pounds per hour;
- (d) Two (2) extrusion units, identified as EU-06 and EU-07 that exhaust to stacks S4 and S5, respectively. Each extrusion unit is limited to 521 pounds of compound per hour;
- (e) One (1) rotogravure press, identified as EU-09, with a maximum coverage of 15 pounds of ink per million square inches (lb/MM in²) of PVC sheet;
- (f) One (1) rotogravure press with four (4) color printing heads, identified as EU-11, with a maximum coverage of 14.4 lb/MM in² of PVC sheet;

- (g) One (1) four color rotogravure press, identified as EU-13, with a maximum coverage of 1.622 gal/MM in² of sheet vinyl;
- (h) One (1) Wash Coater #2, with a line speed of 150 feet per minute (ft/min), and a coating width of 57 inches;
- (i) Two (2) laminators, identified as EU-08, and EU-12. Each laminator has a limited production rate of 4,670,000 yds laminated film/year; and
- (j) One (1) laminator, identified as EU-14, with a production rate of 4,670,000 yards laminated film/year.

A.3 Insignificant Activities [326 IAC 2-7-1(20)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- (a) one (1) natural gas-fired boiler rated at 2.7 MMBTU per hour;
- (b) one (1) natural gas-fired boiler rated at 2.0 MMBtu/hr,
- (c) two (2) natural gas-fired indirect heaters rated at 0.75 MMBtu/hr each,
- (d) one (1) cold cleaner degreasing operation with a capacity of 20 gallons to clean small parts;
- (e) three (3) granulators that chop waste film and recirculate to the mixing line;

- (f) one (1) plastisol mixing line with emissions exhausting to the interior of the plant;
- (g) VOC/HAP storage containers for lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (h) equipment relating to manufacturing activities that does not result in HAP emissions including brazing equipment, cutting torches, soldering equipment, and welding equipment;
- (i) closed loop heating and cooling systems;
- (j) natural draft cooling towers not regulated under a NESHAP;
- (k) replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment;
- (l) paved and unpaved roads and parking lots with public access;
- (m) blowdown for sight glass, boiler, compressors, pumps, and cooling towers.
- (n) two natural gas fired dryers rated at 304,000 BTU/hr each,
- (o) one natural gas fired space heater rated at 580,000 BTU/hr; and
- (p) one (1) natural gas-fired indirect heater for EU-13 rated at 2.0 MMBtu/hr.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description:

- (a) One (1) PVC resin powder storage silo, EU-01, with a maximum storage capacity of 78.8 tons. This silo is equipped with a baghouse for particulate matter control and exhausts to stack vent V1. The material is conveyed via one (1) PVC resin powder transfer system, EU-03, at a maximum throughput capacity of 3,883 tons per year. This system exhausts to stack vent V3;
- (b) One (1) calcium carbonate (CaCO₃) storage silo, EU-02, with a maximum storage capacity of 61 tons. This silo is equipped with a baghouse for particulate matter control and exhausts to stack vent V2. The material is conveyed via one (1) CaCO₃ transfer system, EU-04, with a maximum throughput capacity of 2,590 tons per year. This system exhausts to stack vent V3;
- (c) Two (2) plastic film mixing lines, identified as EU-05, and EU-10. Each line consists of a dry scale, scale transfer, mixer transfer, mixer, cool blend transfer, tote transfer, ribbon blender, and ribbon blend transfer. The dry scales shall be equipped with dedicated filter socks that exhaust to the interior of the plant. The mixer and mixer transfer operations shall be equipped with a baghouse which exhausts to the interior of the plant. These lines also consists of a liquid scale with a maximum throughput of 4,800 pounds per hour and a liquid mixer with a maximum throughput of 720 pounds per hour;
- (d) Two (2) extrusion units, identified as EU-06 and EU-07 that exhaust to stacks S4 and S5, respectively. Each extrusion unit is limited to 521 pounds of compound per hour;
- (e) One (1) rotogravure press, identified as EU-09, with a maximum coverage of 15 pounds of ink per million square inches (lb/MM in²) of PVC sheet;
- (f) One (1) rotogravure press with four (4) color printing heads, identified as EU-11, with a maximum coverage of 14.4 lb/MM in² of PVC sheet;
- (g) One (1) four color rotogravure press, identified as EU-13, with a maximum coverage of 1.622 gal/MM in² of sheet vinyl;
- (h) One (1) Wash Coater #2, with a line speed of 150 feet per minute (ft/min), and a coating width of 57 inches;
- (i) Two (2) laminators, identified as EU-08, and EU-12. Each laminator has a limited production rate of 4,670,000 yds laminated film/year; and
- (j) One (1) laminator, identified as EU-14, with a production rate of 4,670,000 yards laminated film/year.

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter

Pursuant to 326 IAC 6-3 (Process Operations), the following facilities of the plastic film manufacturing plant shall not exceed the following associated particulate matter emissions:

Process Facility	Stack ID	Allowable PM Emissions (lbs/hr)
Resin Powder Storage Silo/Transfer System	V1	2.37
CaCO ₃ Storage Silo/Transfer System	V2	1.79
Plastic Film Mixing Line/Granulators, EU-05	V3	3.52
Extrusion Unit, EU-06	S4	1.66
Extrusion Unit, EU-07	S5	1.66
Laminator, EU-08	S6	0.27
Plastic Film Mixing Line, EU-10	V3	3.52
Laminator, EU-12	S8	0.27
Laminator, EU-13	S14	0.27
Total		15.37

D.1.2 Particulate Matter < 10 microns (PM-10)

Pursuant to 326 IAC 2-8 (FESOP Program), the following facilities of the plastic film manufacturing plant shall not exceed the following associated material throughput rates and PM-10 emissions:

Process Facility	Stack ID	Throughput Limits (tons/hr)	Emissions Factors	PM-10 Emission Limits (lbs/hr)
Resin Powder Storage Silo/Transfer System	V1	0.44	13 lb/ton	2.37
CaCO ₃ Storage Silo/Transfer System	V2	0.29	13 lb/ton	1.79
Plastic Film Mixing Line/Granulators, EU-05	V3	0.794	0.6 lb/ton	3.52
Extrusion Unit, EU-06	S4	0.51	0.00232 lb/lb	1.66
Extrusion Unit, EU-07	S5	0.51	0.00232 lb/lb	1.66
Laminator, EU-08	S6	1800*	0.0005 lb/yd	0.27
Plastic Film Mixing Line, EU-10	V3	0.794	0.6 lb/ton	3.52
Laminator, EU-12	S8	1800*	0.0005 lb/yd	0.27
Laminator, EU-13	S14	1200	0.0005 lb/yd	0.27

* this throughput limit is measured as yards of PVC sheet/hr
1 yard of PVC sheet = 15 ounces
1 ounce = 16 lb

The above PM emission limits shall be demonstrated using each corresponding Emission Factor to calculate the emissions. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.1.3 Visible Emissions

Pursuant to 326 IAC 5-1 (Visible Emissions Limitations), the visible emissions from the plastic film manufacturing plant shall not exceed an average of 40 percent opacity in 24 consecutive readings or 60 percent opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-2-11]

Pursuant to 326 IAC 8-2-11 (Fabric and Vinyl Coating VOC Limitations), the VOC content of the coatings used from the rotogravure presses EU-09, EU-11, EU-13 and the wash coater #2 shall be limited to 4.8 pounds of VOC per gallon of coating less water delivered to the applicator.

D.1.5 Hazardous Air Pollutants

The hazardous air pollutant emissions shall be limited as follows:

- (a) A single hazardous air pollutant (HAP) emissions shall not exceed 9 tons/12-month period rolled on a monthly basis.
- (b) Any combination of HAPs emissions shall not exceed 24 tons/12-month period rolled on a monthly basis.

Therefore, the requirements of 326 IAC 2-7 do not apply.

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the three (3) Laminators shall be limited as follows:

- (a) Laminator EU-08 shall be limited to a production rate of 4,670,000 yards of film per 12-month period rolled on a monthly basis. The limit on this laminator will restrict the VOC emissions to 15.17 tons per 12-month period rolled on a monthly basis. Compliance with this limit will make 326 IAC 8-1-6 (General Reduction) requirements not applicable in this case.
- (b) The new Laminator, EU-12 shall be limited to a production rate of 4,670,000 yards of film per 12-month period rolled on a monthly basis. The limit on this laminator will restrict the VOC emissions to 15.17 tons per 12-month period rolled on a monthly basis. During its first twelve (12) months of operation, its production rate shall be limited such that the total production rate divided by the accumulated months of operation shall not exceed 613,200 yards per month.

Compliance with this limit will make 326 IAC 8-1-6 (General Reduction) requirements not applicable in this case.

- (c) Laminator EU-14 shall be limited to a production rate of 4,670,000 yards of film per 12-month period, rolled on a monthly basis. The limit on this laminator will restrict the VOC emissions to 15.17 tons per 12-month period rolled on a monthly basis.

Compliance with this limit will make 326 IAC 8-1-6 (General Reduction) requirements not applicable in this case.

D.1.7 Volatile Organic Compounds [326 IAC 2-8]

Pursuant to 326 IAC 2-8, the following facilities shall be limited as follows:

- (a) The material compounded from Extruder Line 1 EU-06 and Extruder Line 2 EU-07 shall be limited to 9,127,920 pounds per 12 month period, rolled on a monthly basis.
- (b) The VOC input usage from the new Rotogravure Press EU-11, shall be limited to 6.21 tons per 12-month period rolled on a monthly basis. During the first twelve (12) months of operation of this press, its input VOC usage shall be limited such that the total usage divided by the accumulated months of operation shall not exceed 1.9 tons per month.

- (c) The VOC input usage from the new Wash Coater #2, shall be limited to 3.11 tons per 12-month period rolled on a monthly basis. During the first twelve (12) months of operation of this coater, its input VOC usage shall be limited such that the total usage divided by the accumulated months of operation shall not exceed 0.675 tons per month.
- (d) The VOC input usage from the existing Rotogravure Press, EU-09 shall be limited to 1.55 tons per 12-month period rolled on a monthly basis.
- (e) The VOC input usage from the four color rotogravure press EU-13 shall be limited to 4.66 tons per 12-month period rolled on a monthly basis.

Compliance with conditions D1.7(a) through (e) and D1.6 (a) through (c) shall make 326 IAC 2-7, Part 70 Permit Requirements not applicable.

D.1.8 Volatile Organic Compounds (VOC) [326 IAC 12] [40 CFR 60, Subpart FFF]

Pursuant to 40 CFR 60.582(a)(1), the permittee shall use inks with a weighted average VOC content less than 1.0 kilogram VOC per kilogram ink solids in EU-09, EU-11, and EU-13.

D.1.9 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to EU-09, EU-11, and EU-13 except when otherwise specified in 40 CFR Part 60, Subpart FFF.

Compliance Determination Requirements

D.1.10 Testing Requirements [40 CFR 60, Subpart FFF] [326 IAC 12]

Pursuant to 40 CFR 60.8(a), within 60 days after achieving maximum production rate, but no later than 180 days after initial startup of EU-13, the Permittee shall perform a compliance test for ink VOC content utilizing 40 CFR Part 60, Appendix A, Method 24, or other methods approved by the Commissioner. This test shall be performed to determine compliance with Condition D.1.8.

D.1.11 Volatile Organic Compounds (VOC) [326 IAC 12] [40 CFR 60, Subpart FFF]

Compliance with the VOC content contained in Condition D.1.8 shall be determined pursuant to 40 CFR 60.583(c) using plant blending and inventory records for each affected facility in conjunction with ink manufacturers' formulation data. IDEM, OAQ, reserves the authority to determine compliance using EPA Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.1.12 Visible Emissions Notations

- (a) Visible emission notations of the plastic film mixing line stack exhaust shall be performed once per working shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations from each storage silo baghouse stack exhaust shall be performed during loading operations. A trained employee shall record whether emissions are normal or abnormal.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.1.13 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with condition B.13 of this permit is required for this facility.

D.1.14 Preventive Inspections

The following inspections shall be performed when the plastic film manufacturing line baghouse is operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

- Weekly:
- (a) Bag cleaning mechanisms;
 - (b) Condition of the ductwork; and
 - (c) Bag tension (shake or reverse-air units only).

- Monthly:
- (a) Internal inspection for air leaks;
 - (b) Bag condition; and
 - (c) Fan condition and operation.

Appropriate corrective actions shall be taken in accordance with Condition C.9.

D.1.15 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse associated with the plastic film mixing line, at least once per working shift when its associated facility is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across each baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.16 Broken Bag or Failure Detection

That in the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the units have been replaced.
- (b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

D.1.17 Particulate Matter

The particulate matter (PM) emissions shall be considered in compliance with 326 IAC 6-3 provided that:

- (a) Good housekeeping and equipment maintenance procedures are implemented;
- (b) Emissions are minimized in receiving, handling, and shipping operations by appropriate methods. These may include but need not be limited to, dust collection systems, windscreens, baffles, restricted hopper openings, enclosed transfer points, flexible drop spouts and/or sleeves;
- (c) No visible accumulation of particulate matter beyond the plant property line;
- (d) Emissions do not violate 326 IAC 6-4 (Fugitive Dust Emissions); and
- (e) Visible emissions from the processes are operated under "normal" conditions in accordance with operation condition D.1.8.

D.1.18 Volatile Organic Compounds

The raw material limit in Condition D.1.6 and D.1.7 will result in an equivalent VOC emissions of 99 tons per 12 month. The emissions shall be calculated using the emission factor of 0.0043 lb of VOC/ lb compounded from the two extruders, EU-06 and EU-07, and emission factor 0.0065 lb VOC/yd of film from the three lamination lines, EU-8, EU-14, and EU-12.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.19 Record Keeping Requirements

- (a) To document compliance with Condition D.1.12, the Permittee shall maintain records of daily visible emission notations of each stack exhaust.
- (b) To document compliance with Condition D.1.15, the Permittee shall maintain the following:
 - (1) Daily records of the following operational parameters during normal operation:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency and differential pressure.
 - (2) Documentation of all corrective actions implemented, per event.
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.

- (c) To document compliance with Condition D.1.6, and D.1.7 the Permittee shall maintain the daily film usages from Laminators EU-08, EU-12, and EU-14; ink and solvent usages from Rotogravure Presses EU-09, EU-13 and EU-11; material compounded from Extruders EU-06 and EU-07; solvent usages from Degreasing operations and other volatile organic material usages from the insignificant activities.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.20 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.6, and D.1.7 shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

D.1.21 Reporting Requirements [40 CFR 60.580, Subpart FFF]

- (a) The performance test data and results from the initial performance test shall be submitted to the Commissioner specified in Section 60.8(a) of the General Provisions (40 CFR Part 60, Subpart A).
- (b) Following the initial performance test, the Permittee shall submit semi-annual reports to the Commissioner of exceedances of the weighted average Volatile Organic Compound (VOC) content, specified in § 60.582(a)(1). These reports shall be postmarked within 30 days following the end of the second and fourth calendar quarters
- (c) The requirements of 40 CFR 60.585 remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternate means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with this subsection, provided that they comply with the requirements established by the State.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description:

- (a) one (1) natural gas-fired boiler rated at 2.7 MMBtu per hour;
- (b) one (1) natural gas-fired boiler rated at 2.0 MMBtu/hr,
- (c) two (2) natural gas-fired indirect heaters rated at 0.75 MMBtu/hr each,
- (d) one (1) cold cleaner degreasing operation with a capacity of 20 gallons to clean small parts;
- (e) three (3) granulators that chop waste film and recirculate to the mixing line;
- (f) one (1) plastisol mixing line with emissions exhausting to the interior of the plant;
- (g) VOC/HAP storage containers for lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (h) equipment relating to manufacturing activities that does not result in HAP emissions including brazing equipment, cutting torches, soldering equipment, and welding equipment;
- (i) closed loop heating and cooling systems;
- (j) natural draft cooling towers not regulated under a NESHAP;
- (k) replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment;
- (l) paved and unpaved roads and parking lots with public access;
- (m) blowdown for sight glass, boiler, compressors, pumps, and cooling towers.
- (n) two natural gas fired dryers rated at 304,000 BTU/hr each,
- (o) one natural gas fired space heater rated at 580,000 BTU/hr; and
- (p) one (1) natural gas-fired indirect heater for EU-13 rated at 2.0 MMBtu/hr.

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate Matter

That pursuant to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), particulate matter (PM) emissions from the 2.7 million BTU/hour boiler, the new 2.0 MMBtu/hr boiler, the 2.0 million Btu/hour indirect-fired heater for EU-13 and the new two (2) indirect-fired heaters shall be limited to 0.6 pound per million BTU heat input.

D.2.2 Volatile Organic Compounds

That pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) and 326 IAC 8-3-5 (Cold Cleaner

Degreaser Operation and Control), the degreasing operation shall comply with the requirements of this rule.

- (a) According to 326 IAC 8-3-2, the owner or operator shall:
 - (1) equip the cleaner with a cover;
 - (2) equip the cleaner with a facility for draining cleaned parts;
 - (3) close the degreaser cover whenever parts are not being handled in the cleaner;
 - (4) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
 - (5) provide a permanent, conspicuous label summarizing the operation requirements; and
 - (6) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.
- (b) According to 326 IAC 8-3-5(a), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Products Specialties, Inc.
Source Address: 2073 McDonald Avenue, New Albany, Indiana 47150
Mailing Address: 2073 McDonald Avenue, New Albany, Indiana 47150
FESOP No.: F043-6294-00039, Issued August 12, 1997
Amendment: SMF/ENSR-043-10076-00039
Facility: Laminators, EU-08 EU-12, and EU-14
Pollutant: VOC
Production Limit: Laminator EU-08, - 4,670,000 yards per 12-month period rolled on a monthly basis
Laminator EU-12, - 4,670,000 yards per 12-month period rolled on a monthly basis
Laminator EU-14, - 4,670,000 yards per 12-month period rolled on a monthly basis

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Products Specialties, Inc.
Source Address: 2073 McDonald Avenue, New Albany, Indiana 47150
Mailing Address: 2073 McDonald Avenue, New Albany, Indiana 47150
FESOP No.: F043-6294-00039, Issued August 12, 1997
Amendment: SMF/ENSR-043-10076-00039
Facility: Sourcewide Facilities (Laminators EU-08 & EU-12 & EU-14; Rotogravure Presses EU-09 & EU-13 & EU-11; Wash Coater #2; Extruders EU-06 & EU-07; & insignificant activities)
Limit: Rotogravure Press EU-09 - 1.55 tons of VOC input usage per 12-month period.
Rotogravure Press EU-11 - 1.55 tons of VOC input usage per 12-month period.
Rotogravure Press EU-13 - 4.66 tons of VOC input usage per 12-month period.
Wash Coater #2 - 3.11 tons of VOC input usage per 12-month period.
Extruder EU-06 and EU-07 - 9,127,920 lb of material compound per 12-month period.
These limits together with the laminators and insignificant activities will result to a VOC emissions of 99 ton 12/month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	Product Specialties, Inc.
Source Location:	2073 McDonald Avenue, New Albany, Indiana 47150
County:	Floyd
SIC Code:	3081
Operation Permit No.:	043-6294-00039
Operation Permit Issuance Date:	August 12, 1997
Minor Permit Revision No.:	FESOP 043-13627-00039
Permit Reviewer:	ERG/MP

The Office of Air Quality (OAQ) has reviewed a revision application from Product Specialties, Inc. relating to the operation of a new four color rotogravure coater and laminator.

History

On December 22, 2000, Product Specialties, Inc. submitted an application to the OAQ requesting to add a new four color rotogravure coater and laminator to their existing plant. Product Specialties, Inc. was issued a FESOP on August 12, 1997.

Existing Approvals

The source was issued a FESOP (F043-6294-00039) on August 12, 1997. The source has since received the following:

- (a) First Significant FESOP Modification No.: 043-10076, issued on November 16, 1998; and
- (b) First Significant Permit Revision No.: 043-10654, issued on May 30, 2000.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S12	3-color printer	30	2.58	18,500	100
S13	dryer heater	30	<1.0	<1,000	250
S14	laminator	30	1.67	3,000	100

Recommendation

The staff recommends to the Commissioner that the Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 22, 2000.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document (Appendix A, pages 1 through 4).

Potential To Emit of the Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

Pollutant	Potential To Emit (tons/year)
PM	1.27
PM-10	1.27
SO ₂	0.005
VOC	19.88
CO	0.17
NO _x	0.83

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
methanol	0.93
TOTAL	0.93

Justification For Revision

The FESOP is being revised through a significant permit revision. This revision is being performed pursuant to 326 IAC 2-8-11.1(f) as the modification includes revisions to existing production limits.

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	NO _x	CO	SO ₂	HAPs	VOC
New 4 color vinyl coating unit (EU-13)	-	-	-	-	-	0.93	4.66
New laminator (EU-14)	1.7	1.7	-	-	-	-	15.17
New printer dryer heater (2.0 MMBtu)	0.10	0.10	0.83	0.17	0.005	-	0.048
Storage/Handling	33.6	33.6	-	-	-	-	-
4 color vinyl printing unit (EU-11)	-	-	-	-	-	1.24	6.21*
Laminator (EU-12)	1.17*	1.17*	-	-	-	-	15.17*
Wash Coater #2	-	-	-	-	-	0.62	3.11*
Vinyl Printing unit (EU-09)	-	-	-	-	-	0.31	1.55*
Laminator (EU-08)	1.17*	1.17*	-	-	-	-	15.17*
Plastic Film Line (EU-05)	15.4	15.4	-	-	-	-	-
All other sources**	14.63	14.63	0.77	0.46	0.002	0.06	22.2
Total Emissions	67.24	67.24	1.6	0.61	0.007	3.16	83.3

*These limits are being reduced in order to accommodate the new equipment.

**Includes the extruders and other combustion units.

County Attainment Status

The source is located in Floyd County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Non-attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (Nox) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Floyd County has been designated as nonattainment for ozone.

Federal Rule Applicability

- (a) The four color rotogravure coater (EU-13) is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.580, Subpart FFF). Pursuant to this subpart, the Permittee shall use inks with a weighted average VOC content less than 1.0 kilogram VOC per kilogram ink solids. Initial compliance with this requirement shall be determined using EPA Method 24 and compliance thereafter shall be demonstrated using plant blending and inventory records in conjunction with ink manufacturers' formulation data. 40 CFR 60 Subpart QQ (Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing) does not apply to this source since it is not a publication rotogravure printing press as defined in 40 CFR 60.431.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source. 40 CFR 63 Subpart KK (National Emission Standards for the Printing and Publishing Industry) does not apply as the source is not a major source of hazardous air pollutants (HAP) as defined in 40 CFR 63.2.

State Rule Applicability - Individual Facilities

326 IAC 8-5-5 (Graphic Arts Operations)

326 IAC 8-5-5 (Graphic Arts Operations) does not apply as this is not a packaging rotogravure, publication rotogravure, or flexographic printing source.

326 IAC 8-2-11 (Fabric and Vinyl Coating)

The four color rotogravure coater (EU-13) is subject to 326 IAC 8-2-11 (Fabric and Vinyl Coating) because it has 100 percent (100%) substrate saturation, will be constructed after July 1, 1990 and is expected to have VOC emissions greater than fifteen (15) pounds per day. Pursuant to this rule, the volatile organic compound (VOC) content of coating delivered to the applicator at the vinyl coating line shall be limited to 4.8 pounds of VOCs per gallon of coating less water.

Based on the MSDS submitted by the source and calculations made, the vinyl coating line is in compliance with this requirement.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the laminator shall be limited to 4.43 pounds per hour at a weight rate of 2,250 pounds per hour as calculated by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Stack tests performed at a similar operation indicate PM emissions will be 0.6 pounds per hour, in compliance with this limit.

326 IAC 8-1-6 (Best Available Control Technology)

326 IAC 8-1-6 does not apply to the laminator because it has potential emissions less than 25 tons VOC/year.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source have not changed.

Proposed Changes

A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

- (g) One (1) four color rotogravure press, identified as EU-13, with a maximum coverage of 1.622 gal/MM in² of sheet vinyl;**
- (h)(g) One (1) Wash Coater #2, with a line speed of 150 feet per minute (ft/min), and a coating width of 57 inches; and**
- (i)(h) Two (2) laminators, identified as EU-08, and EU-12. Each laminator has a limited production rate of 7,384,680 4,670,000 yds laminated film/year.; and**
- (j) One (1) laminator, identified as EU-14, with a production rate of 4,670,000 yards laminated film/year.**

A.3 Insignificant Activities [326 IAC 2-7-1(20)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- (l) paved and unpaved roads and parking lots with public access; and**
- (m) blowdown for sight glass, boiler, compressors, pumps, and cooling towers.**
- (n) two natural gas fired dryers rated at 304,000 BTU/hr each,**
- (o) one natural gas fired space heater rated at 580,000 BTU/hr.; and**
- (p) one (1) natural gas-fired indirect heater for EU-13 rated at 2.0 MMBtu/hr.**

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description:

- (a) One (1) PVC resin powder storage silo, EU-01, with a maximum storage capacity of 78.8 tons. This silo is equipped with a baghouse for particulate matter control and exhausts to stack vent V1. The material is conveyed via one (1) PVC resin powder transfer system, EU-03, at a maximum throughput capacity of 3,883 tons per year. This system exhausts to stack vent V3;
- (b) One (1) calcium carbonate (CaCO₃) storage silo, EU-02, with a maximum storage capacity of 61 tons. This silo is equipped with a baghouse for particulate matter control and exhausts to stack vent V2. The material is conveyed via one (1) CaCO₃ transfer system, EU-04, with a maximum throughput capacity of 2,590 tons per year. This system exhausts to stack vent V3;
- (c) Two (2) plastic film mixing lines, identified as EU-05, and EU-10. Each line consists of a dry scale, scale transfer, mixer transfer, mixer, cool blend transfer, tote transfer, ribbon blender, and ribbon blend transfer. The dry scales shall be equipped with dedicated filter socks that exhaust to the interior of the plant. The mixer and mixer transfer operations shall be equipped with a baghouse which exhausts to the interior of the plant. These lines also consists of a liquid scale with a maximum throughput of 4,800 pounds per hour and a liquid mixer with a maximum throughput of 720 pounds per hour;
- (d) Two (2) extrusion units, identified as EU-06 and EU-07 that exhaust to stacks S4 and S5, respectively. Each extrusion unit is limited to 521 pounds of compound per hour;
- (e) One (1) rotogravure press, identified as EU-09, with a maximum coverage of 15 pounds of ink per million square inches (lb/MM in²) of PVC sheet;
- (f) One (1) rotogravure press with four (4) color printing heads, identified as EU-11, with a maximum coverage of 14.4 lb/MM in² of PVC sheet;
- (g) One (1) four color rotogravure press, identified as EU-13, with a maximum coverage of 1.622 gal/MM in² of sheet vinyl;**
- ~~(h)(g)~~ One (1) Wash Coater #2, with a line speed of 150 feet per minute (ft/min), and a coating width of 57 inches; ~~and~~
- ~~(i)(h)~~ Two (2) laminators, identified as EU-08, and EU-12. Each laminator has a limited production rate of ~~7,384,680~~ **4,670,000** yds laminated film/year.; **and**
- (j) One (1) laminator, identified as EU-14, with a production rate of 4,670,000 yards laminated film/year.**

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter

Pursuant to 326 IAC 6-3 (Process Operations), the following facilities of the plastic film manufacturing plant shall not exceed the following associated particulate matter emissions:

Process Facility	Stack ID	Allowable PM Emissions (lbs/hr)
Resin Powder Storage Silo/Transfer System	V1	2.37
CaCO ₃ Storage Silo/Transfer System	V2	1.79
Plastic Film Mixing Line/Granulators, EU-05	V3	3.52
Extrusion Unit, EU-06	S4	1.66
Extrusion Unit, EU-07	S5	1.66
Laminator, EU-08	S6	0.90 0.27
Plastic Film Mixing Line, EU-10	V3	3.52
Laminator, EU-12	S8	0.90 0.27
Laminator, EU-13	S14	0.27
Total		16.36 15.37

D.1.2 Particulate Matter < 10 microns (PM-10)

Pursuant to 326 IAC 2-8 (FESOP Program), the following facilities of the plastic film manufacturing plant shall not exceed the following associated material throughput rates and PM-10 emissions:

Process Facility	Stack ID	Throughput Limits (tons/hr)	Emissions Factors	PM-10 Emission Limits (lbs/hr)
Resin Powder Storage Silo/Transfer System	V1	0.44	13 lb/ton	2.37
CaCO ₃ Storage Silo/Transfer System	V2	0.29	13 lb/ton	1.79
Plastic Film Mixing Line/Granulators, EU-05	V3	0.794	0.6 lb/ton	3.52
Extrusion Unit, EU-06	S4	0.51	0.00232 lb/lb	1.66
Extrusion Unit, EU-07	S5	0.51	0.00232 lb/lb	1.66
Laminator, EU-08	S6	1800*	0.0005 lb/yd	0.90 0.27
Plastic Film Mixing Line, EU-10	V3	0.794	0.6 lb/ton	3.52
Laminator, EU-12	S8	1800*	0.0005 lb/yd	0.90 0.27
Laminator, EU-13	S14	1200	0.0005 lb/yd	0.27

* this throughput limit is measured as yards of PVC sheet/hr
1 yard of PVC sheet = 15 ounces
1 ounce = 16 lb

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-2-11]

Pursuant to 326 IAC 8-2-11 (Fabric and Vinyl Coating VOC Limitations), the VOC content of the coatings used from the rotogravure presses EU-09, EU-11, **EU-13** and the wash coater #2 shall be limited to 4.8 pounds of VOC per gallon of coating less water delivered to the applicator.

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the ~~two (2)~~ **three (3)** Laminators shall be limited as follows:

- (a) Laminator EU-08 shall be limited to a production rate of ~~7,358,400~~ **4,670,000** yards of film per 12-month period rolled on a monthly basis. The limit on this laminator will restrict the VOC emissions to ~~24~~ **15.17** tons per 12-month period rolled on a monthly basis. Compliance with this limit will make 326 IAC 8-1-6 (General Reduction) requirements not applicable in this case.
- (b) The new Laminator, EU-12 shall be limited to a production rate of ~~7,358,400~~ **4,670,000** yards of film per 12-month period rolled on a monthly basis. The limit on this laminator will restrict the VOC emissions to ~~24~~ **15.17** tons per 12-month period rolled on a monthly basis. During its first twelve (12) months of operation, its production rate shall be limited such that the total production rate divided by the accumulated months of operation shall not exceed 613,200 yards per month.
- Compliance with this limit will make 326 IAC 8-1-6 (General Reduction) requirements not applicable in this case.
- (c) **Laminator EU-14 shall be limited to a production rate of 4,670,000 yards of film per 12-month period, rolled on a monthly basis. The limit on this laminator will restrict the VOC emissions to 15.17 tons per 12-month period rolled on a monthly basis.**
- Compliance with this limit will make 326 IAC 8-1-6 (General Reduction) requirements not applicable in this case.**

D.1.7 Volatile Organic Compounds [326 IAC 2-8]

Pursuant to 326 IAC 2-8, the following facilities shall be limited as follows:

- (a) The material compounded from Extruder Line 1 EU-06 and Extruder Line 2 EU-07 shall be limited to 9,127,920 pounds per 12 month period, rolled on a monthly basis.
- (b) The VOC input usage from the new Rotogravure Press **EU-11**, shall be limited to ~~44.8~~ **6.21** tons per 12-month period rolled on a monthly basis. During the first twelve (12) months of operation of this press, its input VOC usage shall be limited such that the total usage divided by the accumulated months of operation shall not exceed 1.9 tons per month.
- (c) The VOC input usage from the new Wash Coater #2, shall be limited to ~~8.4~~ **3.11** tons per 12-month period rolled on a monthly basis. During the first twelve (12) months of operation of this coater, its input VOC usage shall be limited such that the total usage divided by the accumulated months of operation shall not exceed 0.675 tons per month.
- (d) The VOC input usage from the existing Rotogravure Press, EU-09 shall be limited to ~~5.6~~ **1.55** tons per 12-month period rolled on a monthly basis.
- (e) **The VOC input usage from the four color rotogravure press EU-13 shall be limited to 4.66 tons per 12-month period rolled on a monthly basis.**

Compliance with conditions D1.7(a) through ~~(d)~~ **(e)** and D1.6 (a) ~~and (b) through (c)~~ shall make 326 IAC 2-7, Part 70 Permit Requirements not applicable.

D.1.8 Volatile Organic Compounds (VOC) [326 IAC 12] [40 CFR 60, Subpart FFF]

Pursuant to 40 CFR 60.582(a)(1), the permittee shall use inks with a weighted average VOC content less than 1.0 kilogram VOC per kilogram ink solids in EU-09, EU-11, and EU-13.

D.1.9 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to EU-09, EU-11, and EU-13 except when otherwise specified in 40 CFR Part 60, Subpart FFF.

D.1.10 Testing Requirements [40 CFR 60, Subpart FFF] [326 IAC 12]

Pursuant to 40 CFR 60.8(a), within 60 days after achieving maximum production rate, but no later than 180 days after initial startup of EU-13, the Permittee shall perform a compliance test for ink VOC content utilizing 40 CFR Part 60, Appendix A, Method 24, or other methods approved by the Commissioner. This test shall be performed to determine compliance with Condition D.1.8.

D.1.11 Volatile Organic Compounds (VOC) [326 IAC 12] [40 CFR 60, Subpart FFF]

Compliance with the VOC content contained in Condition D.1.8 shall be determined pursuant to 40 CFR 60.583(c) using plant blending and inventory records for each affected facility in conjunction with ink manufacturers' formulation data. IDEM, OAQ, reserves the authority to determine compliance using EPA Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.128 Visible Emissions Notations

- (a) Visible emission notations of the plastic film mixing line stack exhaust shall be performed once per working shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations from each storage silo baghouse stack exhaust shall be performed during loading operations. A trained employee shall record whether emissions are normal or abnormal.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.1.139 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with condition B.13 of this permit is required for this facility.

D.1.1440 Preventive Inspections

The following inspections shall be performed when the plastic film manufacturing line baghouse is operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

- Weekly:
- (a) Bag cleaning mechanisms;
 - (b) Condition of the ductwork; and
 - (c) Bag tension (shake or reverse-air units only).

- Monthly: (a) Internal inspection for air leaks;
- (b) Bag condition; and
- (c) Fan condition and operation.

Appropriate corrective actions shall be taken in accordance with Condition C.9.

D.1.1511 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse associated with the plastic film mixing line, at least once per working shift when its associated facility is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across each baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.1612 Broken Bag or Failure Detection

That in the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the units have been replaced.
- (b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

D.1.1713 Particulate Matter

The particulate matter (PM) emissions shall be considered in compliance with 326 IAC 6-3 provided that:

- (a) Good housekeeping and equipment maintenance procedures are implemented;
- (b) Emissions are minimized in receiving, handling, and shipping operations by appropriate methods. These may include but need not be limited to, dust collection systems, windscreens, baffles, restricted hopper openings, enclosed transfer points, flexible drop spouts and/or sleeves;
- (c) No visible accumulation of particulate matter beyond the plant property line;
- (d) Emissions do not violate 326 IAC 6-4 (Fugitive Dust Emissions); and
- (e) Visible emissions from the processes are operated under "normal" conditions in accordance with operation condition D.1.8.

D.1.1814 Volatile Organic Compounds

The raw material limit in Condition D.1.6 and D.1.7 will result in an equivalent VOC emissions of 99 tons per 12 month. The emissions shall be calculated using the emission factor of 0.0043 lb of VOC/ lb compounded from the two extruders, EU-06 and EU-07, and emission factor 0.0065 lb VOC/yd of film from the ~~two~~ **three** lamination lines, EU-8, **EU-14**, and EU-12.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.1915 Record Keeping Requirements

- (a) To document compliance with Condition D.1.128, the Permittee shall maintain records of daily visible emission notations of each stack exhaust.
- (b) To document compliance with Condition D.1.1544, the Permittee shall maintain the following:
 - (1) Daily records of the following operational parameters during normal operation:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency and differential pressure.
 - (2) Documentation of all corrective actions implemented, per event.
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.
- (c) To document compliance with Condition D.1.6, and D.1.7 the Permittee shall maintain the daily film usages from Laminators EU-08, ~~and Laminator EU-12, and EU-14~~; ink and solvent usages from Rotogravure Presses EU-09, **EU-13** and EU-11; material compounded from Extruders EU-06 and EU-07; solvent usages from Degreasing operations and other volatile organic material usages from the insignificant activities.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.2046 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.6, and D.1.7 shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

D.1.21 Reporting Requirements [40 CFR 60.580, Subpart FFF]

- (a) **The performance test data and results from the initial performance test shall be submitted to the Commissioner specified in Section 60.8(a) of the General Provisions (40 CFR Part 60, Subpart A).**
- (b) **Following the initial performance test, the Permittee shall submit semi-annual reports to the Commissioner of exceedances of the weighted average Volatile Organic Compound (VOC) content, specified in § 60.582(a)(1). These reports shall be postmarked within 30 days following the end of the second and fourth calendar quarters.**
- (c) **The requirements of 40 CFR 60.585 remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternate means of compliance**

surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with this subsection, provided that they comply with the requirements established by the State.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description:

- (a) one (1) natural gas-fired boiler rated at 2.7 MMBtu per hour;
- (b) one (1) natural gas-fired boiler rated at 2.0 MMBtu/hr,
- (c) two (2) natural gas-fired indirect heaters rated at 0.75 MMBtu/hr each,
- (d) one (1) cold cleaner degreasing operation with a capacity of 20 gallons to clean small parts;
- (e) three (3) granulators that chop waste film and recirculate to the mixing line;
- (f) one (1) plastisol mixing line with emissions exhausting to the interior of the plant;
- (g) VOC/HAP storage containers for lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (h) equipment relating to manufacturing activities that does not result in HAP emissions including brazing equipment, cutting torches, soldering equipment, and welding equipment;
- (i) closed loop heating and cooling systems;
- (j) natural draft cooling towers not regulated under a NESHAP;
- (k) replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment;
- (l) paved and unpaved roads and parking lots with public access; ~~and~~
- (m) blowdown for sight glass, boiler, compressors, pumps, and cooling towers.
- (n) two natural gas fired dryers rated at 304,000 BTU/hr each,
- (o) one natural gas fired space heater rated at 580,000 BTU/hr.; **and**
- (p) **one (1) natural gas-fired indirect heater for EU-13 rated at 2.0 MMBtu/hr.**

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate Matter

That pursuant to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), particulate matter (PM) emissions from the 2.7 million BTU/hour boiler, the new 2.0 MMBtu/hr boiler, **the 2.0 million Btu/hour indirect-fired heater for EU-13** and the new two (2) indirect-fired heaters shall be limited to 0.6 pound per million BTU heat input.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Products Specialties, Inc.
Source Address: 2073 McDonald Avenue, New Albany, Indiana 47150
Mailing Address: 2073 McDonald Avenue, New Albany, Indiana 47150
FESOP No.: F043-6294-00039, Issued August 12, 1997
Amendment: SMF/ENSR-043-10076-00039
Facility: Laminators, EU-08, and Laminator EU-12, and EU-14
Pollutant: VOC
Production Limit: Laminator EU-08, - ~~7,384,680~~ **4,670,000** yards per 12-month period rolled on a monthly basis
Laminator EU-12, - ~~7,384,680~~ **4,670,000** yards per 12-month period rolled on a monthly basis
Laminator EU-14, - 4,670,000 yards per 12-month period rolled on a monthly basis

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Products Specialties, Inc.
Source Address: 2073 McDonald Avenue, New Albany, Indiana 47150
Mailing Address: 2073 McDonald Avenue, New Albany, Indiana 47150
FESOP No.: F043-6294-00039, Issued August 12, 1997
Amendment: SMF/ENSR-043-10076-00039
Facility: Sourcewide Facilities (Laminators EU-08 & EU-12 & **EU-14**; Rotogravure Presses EU-09 & **EU-13** & EU-11; Wash Coater #2; Extruders EU-06 & EU-07; & insignificant activities
Limit: Rotogravure Press EU-09 - **1.55** ~~5.6~~ tons of VOC input usage per 12-month period.
Rotogravure Press EU-11 - **1.55** ~~4.8~~ tons of VOC input usage per 12-month period.
Rotogravure Press EU-13 - 4.66 tons of VOC input usage per 12-month period.
Wash Coater #2 - **3.11** ~~8.4~~ tons of VOC input usage per 12-month period.
Extruder EU-06 and EU-07 - 9,127,920 lb of material compound per 12-month period.
These limits together with the laminators and insignificant activities will result to a VOC emissions of 99 ton 12/month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Conclusion

The operation of this vinyl coating line shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 043-13627-00039.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

Company Name: Product Specialties, Inc.

Address City IN Zip: 2073 McDonal Avenue, New Albany, IN 47150

MPM: 043-13627-00039

Pit ID: 043-00039

Reviewer: ERG/MP

Date: 1/09/01

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

2.0

17.5

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.0	0.1	0.0	0.9	0.0	0.7

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations

Page 2 of 4 TSD App A

Natural Gas Combustion Only**MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name:** Product Specialties, Inc.**Address City IN Zip:** 2073 McDonal Avenue, New Albany, IN 47150**MPM:** 043-13627-00039**Pit ID:** 043-00039**Reviewer:** ERG/MP**Date:** 1/09/01**HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.840E-05	1.051E-05	6.570E-04	1.577E-02	2.978E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	4.380E-06	9.636E-06	1.226E-05	3.329E-06	1.840E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

gasc99.wk4 9/95

updated 4/99

Emission Calculations
New Printing Operations

Three Color Printer

A new three color printer will be installed as the first process unit in the manufacturing line. The units will use coatings identical to those of the existing printing system, with the exception that the main print vehicle (Polytex) has been reformulated with less VOC. Emission calculations are based on a material balance of the coatings to be used.

Potential Process and Emission Calculations:

Production Rates:

40 yds per minute

4,666,667 yds/yr

Maximum coating rate, full coverage:

300 yds (at 57" web width) /gallon of coating

$$900 \text{ ft} * 12 \text{ inches/ft} * 57 \text{ inches width} = 615,600 \text{ in}^2$$

$$\text{Coating rate} = 1 \text{ gal} / .6156 \text{ MM in}^2 = 1.622 \text{ gal/MM in}^2$$

Hourly Rate:

$$120 \text{ feet per minute} * 12 \text{ inches/ft} * 60 \text{ minutes/hr} * 57 \text{ inches width} = 4,924,800 \text{ sq. inches/hr}$$

$$1.622 \text{ gal/MM in}^2 * 4.925 \text{ MM in}^2/\text{hr} = 7.99 \text{ gal/hr} * 3 \text{ colors} = 23.97 \text{ gal/hr}$$

$$23.97 \text{ gal/hr (as applied)} * 0.20 \text{ lbs VOC/gal} = 4.79 \text{ lbs VOC/hr}$$

Annual Rate:

$$4.67 \text{ MM yds/yr} * 3 \text{ ft/yd} * 12 \text{ inches/ft} * 57 \text{ inches width} = 9583 \text{ MM in}^2/\text{yr}$$

$$1.622 \text{ gal/MM in}^2 * 9583 \text{ MM in}^2/\text{yr} * 3 \text{ colors} * 0.20 \text{ lbs VOC/gal} * 1 \text{ ton} / 2000 \text{ lbs} = 4.66 \text{ TPY VOC}$$

HAP Emissions

Hourly:

$$23.97 \text{ gal/hr} * 0.04 \text{ lbs HAP (MeOH)/ gal} = 0.96 \text{ lbs/hr}$$

Annual:

$$1.622 \text{ gal/MM in}^2 * 9583 \text{ MM in}^2/\text{yr} * 3 \text{ colors} * 0.04 \text{ lbs HAP/gal} * 1 \text{ ton} / 2000 \text{ lbs} = 0.93 \text{ TPY}$$

Emission Calculations
New Lamination Operations

Emission estimates are based on a stack test conducted at a similar plant, GenCorp - PA.
The emission factors used are 0.0005 lbs PM(10) per yd processed and 0.0065 lbs VOC/yd processed. The production rate in pounds is 30 ounces per linear yard.

Lamination

Potential Process and Emission Calculations:

Uncontrolled PM and PM10

20 yds per minute * 60 minutes/hr * .0005 lbs PM/yd processed = 0.6 lbs PM/hr

4.67 MM yds/yr * 0.0005 lbs PM/yd processed = 2335 lbs PM/yr = 1.17 TPY PM

Uncontrolled VOC

20 yds per minute * 60 minutes/hr * 0.0065 lbs VOC/yd processed = 7.8 lbs VOC/hr

4.67 MM yds/yr * 0.0065 lbs VOC/yd processed = 30355 lbs VOC/yr = 15.17 TPY VOC